



**US Army Corps
of Engineers**

Philadelphia District

Public Notice

Public Notice No.
CENAP-PL-E-05-04

Date
June 30, 2005

Internet Homepage <http://www.nap.usace.army.mil>

In Reply Refer to: Environmental Resources Branch

POND CREEK SALT MARSH RESTORATION PROJECT CAPE MAY COUNTY, NEW JERSEY

Pursuant to Section 404 of the Clean Water Act of 1977 and Section 10 of the Rivers and Harbors Act OF 1899, NOTICE IS HEREBY GIVEN that the Philadelphia District, U.S. Army Corps of Engineers (Corps) proposes the Pond Creek Salt Marsh Restoration Project, Cape May County, New Jersey (Figure 1).

The purpose of the Pond Creek Salt Marsh Restoration Project is to restore estuarine intertidal emergent wetland habitat for fish and wildlife resources. This will be accomplished by reintroducing tidal flushing in the lower marsh areas of Pond Creek to eliminate and control common reed (*Phragmites australis*), an exotic and invasive species which has formed an extensive, dense stand throughout most of Pond Creek marsh. Once established, *Phragmites* often out competes native salt marsh vegetation, creating habitat less suitable for wildlife. Control of common reed will allow the reestablishment of native salt marsh vegetation [e.g., smooth cordgrass (*Spartina alterniflora*), salt hay grass (*S. patens*), and spike grass (*Distichlis spicata*)], thus increasing habitat available for a variety of fish and wildlife resources, in particular, the diamondback terrapin (*Malaclemys terrapin*), egrets, herons, shorebirds, and waterfowl.

The Pond Creek marsh (totaling 417 acres) is located along the Delaware Bay and runs north of Sunset Boulevard in Lower Township and in the Borough of West Cape May, Cape May County, New Jersey. The marsh, once a free-flowing estuarine tidal marsh before human disturbance, is part of the State of New Jersey's Higbee Beach Wildlife Management Area. The State's Division of Fish and Wildlife currently manages the marsh for migratory bird and waterfowl habitat and human recreation (e.g., birding and hunting). The marsh is bordered by vegetated dunes [beach grass (*Ammophila breviligulata*)] to the west and abandoned railroad tracks supporting red cedar (*Juniperus virginiana*), northern bayberry (*Myrica pensylvanica*), and wax myrtle (*Myrica cerifera*) to the south. A portion of Pond Creek marsh extends south of the abandoned railroad tracks and is bordered by agricultural land, residential development, and small patches of upland forest. The eastern portion of Pond Creek is bordered by agricultural lands with upland forest buffers. The northern portion of Pond Creek is bordered primarily by upland forest with several agricultural fields. An upland forested island is situated in the middle of the Pond Creek marsh, known as Sassafra Island. A small open freshwater area identified as Davey's Lake is situated northwest of the marsh. Pond Creek is almost entirely freshwater wetlands, as a result of a tide gate installed in 1917, at the mouth of Pond Creek, which flows into the Delaware Bay. The tide gate has since deteriorated and been removed. Due to the small size of the creek and the sinuosity of the channel, very little bay water is currently getting into the marsh to flood the *Phragmites*.

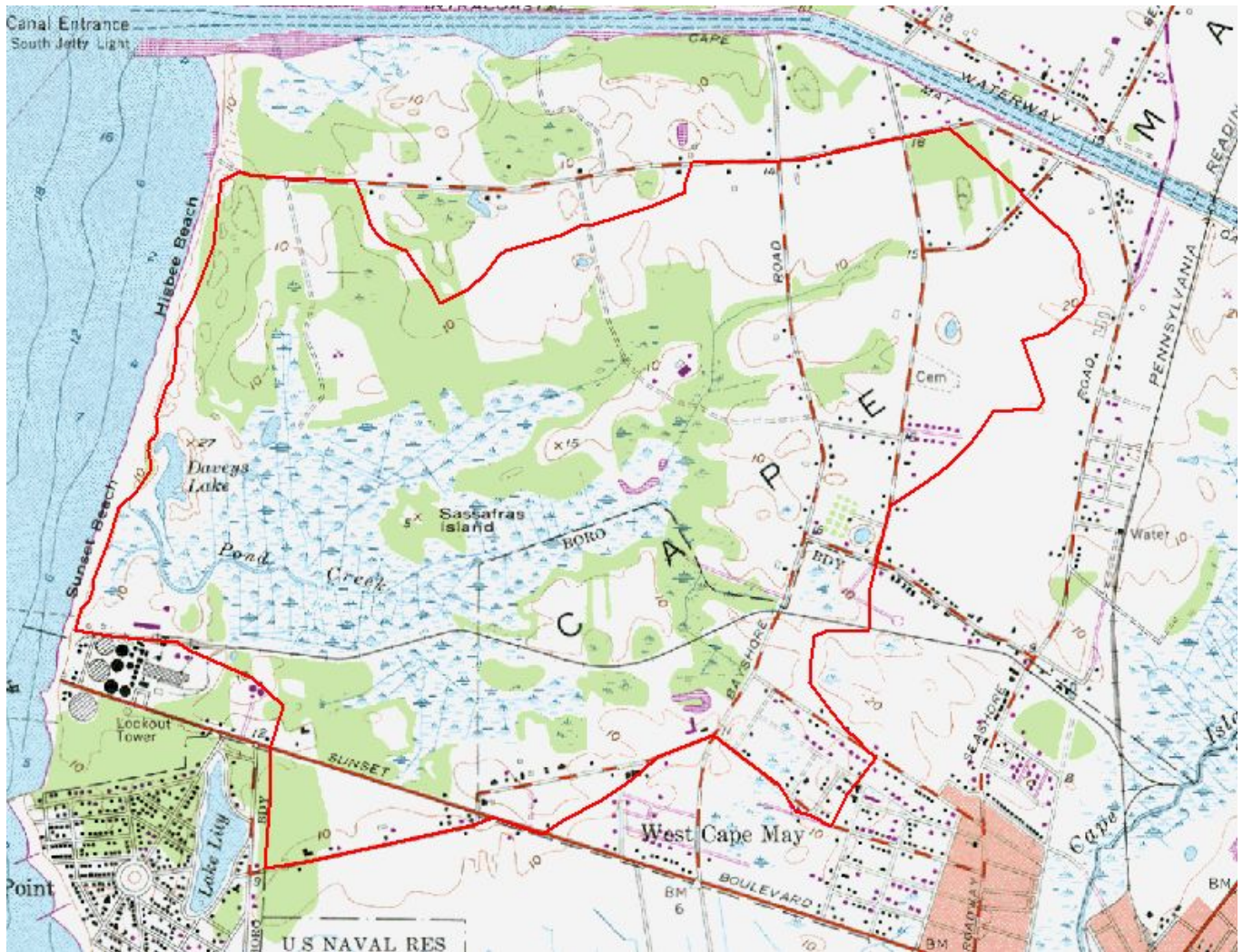


Figure 1. Pond Creek project area and watershed.

The Corps, U.S. Fish and Wildlife Service, and project partners have identified that constructing a new channel and water-control structure is the least costly and most environmentally acceptable method of reintroducing tidal flow to the marsh, controlling *Phragmites*, and reestablishing a native salt marsh. The proposed project will include construction of a 920-foot section of new stream channel to shorten the distance between the Bay and the marsh, thus increasing the amount of tidal flow into the marsh and reducing the potential for inlet migration (Figure 2).

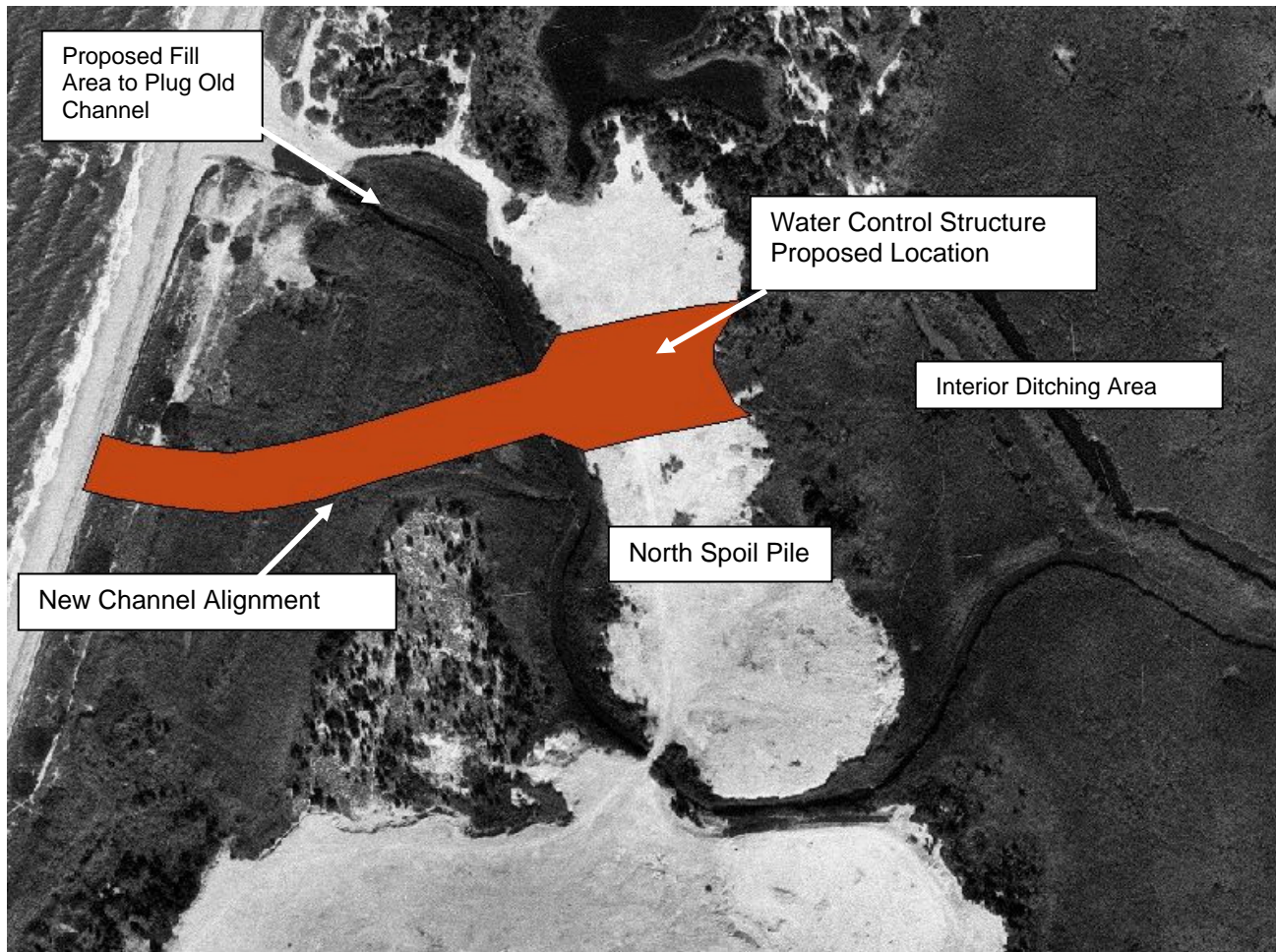


Figure 2. Preferred alternative: tidal inundation with water-control structure (using new channel alignment).

The water control structure would be located in the middle of the north spoil pile and would be approximately 17 ft high and 40 ft wide (Figure 2). In addition, the attached sheetpiling to the water control structure would be 200 ft wide. The proposed structure would be composed of 4 box culverts with gates on each to control the amount of water entering the marsh.

Upon digging the new channel and inundating the marsh, *Phragmites* will be eradicated or greatly controlled in the Pond Creek marsh, allowing native, more beneficial marsh vegetation to reestablish. The native vegetation will provide approximately 270 acres of greatly improved habitat for diamondback terrapins, migratory songbirds, wading birds, shorebirds, and waterfowl. In addition, the water control structure will throttle the tidal inundation to Pond Creek protecting freshwater wetlands in the upper portions of the marsh.

The selected alternative requires excavation through an existing spoil pile deposited by a previous property owner. The excavated material from behind the dunes (sand) will be used to plug the current opening of the channel. Material excavated for the new channel within the spoil

pile will be placed on the adjacent areas of the spoil pile and reseeded. Approximately 26,000 cubic yards (cys) will be excavated within the spoil pile and approximately 13,000 cys will be excavated outside the spoil pile for the new channel. In addition, a new jetty will be constructed to stabilize the new inlet for the channel. In order to daylight the channel to the required bottom elevation, the new channel will go 154 ft into Delaware Bay. This portion of the new channel (approx. 2400 cys) will be dredged and the material placed on the beach.

Enlarging the inlet channel requires interior ditching of the north marsh to provide daily inundation. Approximate interior ditching of the marsh will include:

Main Channel 1: 10 ft bottom width,
2400 ft long; side slopes of 1V to 5H; elmin = -3.3 ft-NAVD

Laterals:
24 laterals, 12 on each side of the main channel.
5 ft bottom width
1500 ft long; side slopes of 1V to 5H; elmin = -3.3 ft-NAVD

Main Channel 2:
(up north finger) 10 ft bottom width
2800 ft long; side slopes of 1V to 5H; elmin = -3.3 ft-NAVD

Laterals: 28 laterals, 14 on each side of the main channel
5 ft bottom width
200 ft long; side slopes of 1V to 5H; elmin = -3.3 ft-NAVD

Main Channel 3:
(up south finger) 10 ft bottom width
2800 ft long; side slopes of 1V to 5H; elmin = -3.3 ft-NAVD

Laterals: 28 laterals, 14 on each side of the main channel
5 ft bottom width
400 ft long; side slopes of 1V to 5H; elmin = -3.3 ft-NAVD

Ditching would create channels approximately 200 ft apart. This ditching is necessary to properly move the water through the marsh and flood the existing *Phragmites*.

Selection of the preferred plan is based on performance and stability. The plan also seeks to minimize costs associated with excavation of the new channel and negative impacts to the environment during construction. In order to prevent interior flooding during storm events, the water control structure can not be bypassed and the dunes north of the existing inlet must not be breached. The existing dunes are substantial and are unlikely to fail during storm events. However, long-term erosion is possible due to inlet processes specifically during the formation of the ebb and flood shoals. Eventually an equilibrium will be reached and bypassing and re-attachment bars established, but until that happens there will be an interruption of the littoral

drift that may trigger down drift erosion. To counter this affect, the selected plan places the inlet south of the existing inlet (approximately 600 ft south). If down drift erosion is triggered and equilibrium is not quickly reestablished, there will be time to mobilize and augment the beach with sand before the Davy's Lake dunes are affected. The existing inlet has not always been in its present location. Figure 3 is an 1888 map showing the inlet 1500 feet south of the present location.

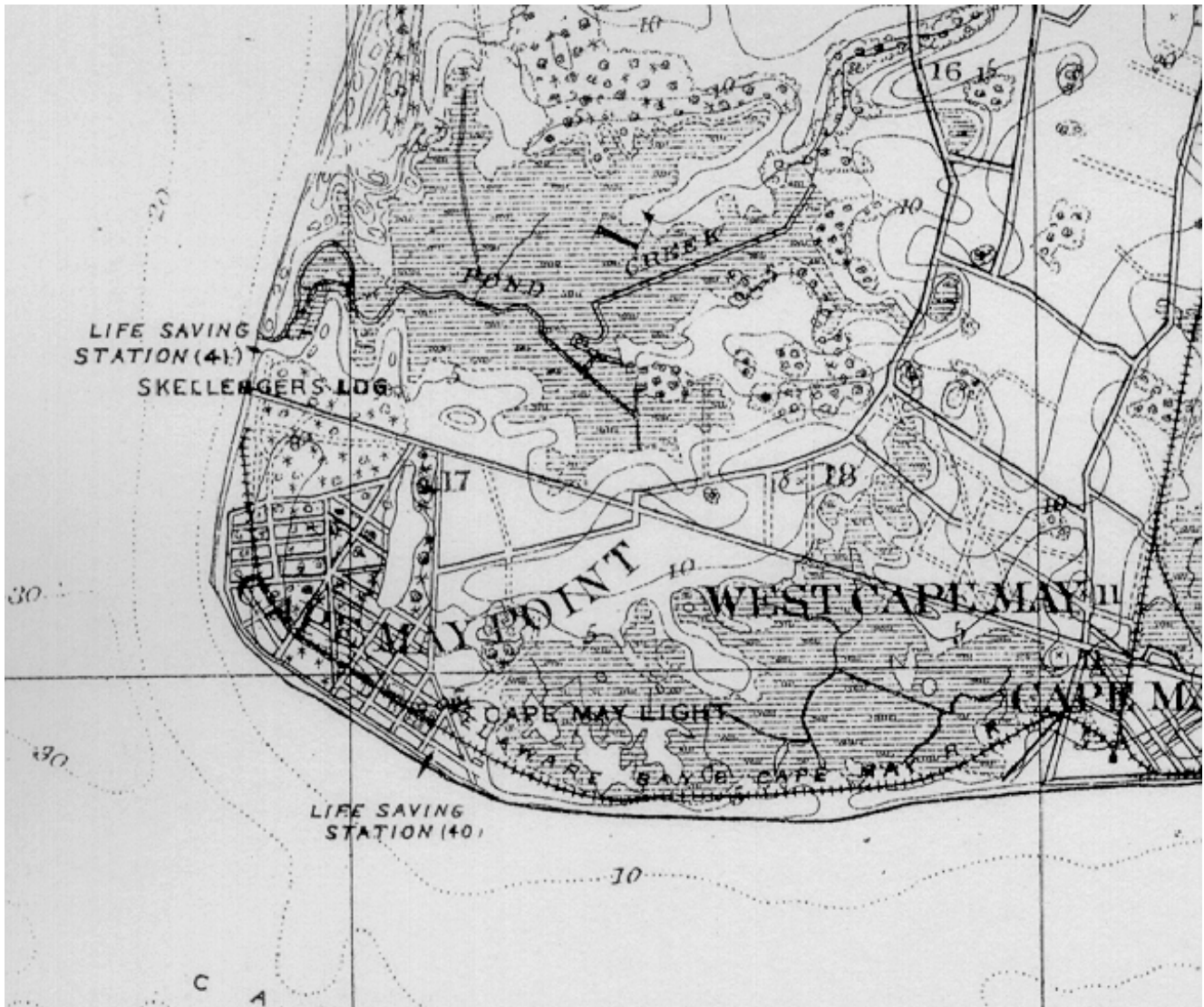


Figure 3. An 1888 map showing the original alignment of Pond Creek.

Current conditions at the site provide local residents with protection from Delaware Bay storms at the 20-year level. When completed, this proposed alternative will provide residents with Delaware Bay storm protection to the 500-year level. In addition, by moving the channel to the south of the existing inlet, the concerns over erosion of the north dunes are alleviated. By having the inlet in this location, the water control structure is protected, by existing dunes that will be

located on either side of the new channel, from future erosion. Due to the environmental and hydraulic reasons, this is the preferred and selected alternative.

In accordance with the National Environmental Policy Act, a Draft Environmental Assessment has been developed for this project. The Environmental Assessment concludes that the proposed action would not have a significant adverse impact on the environment. Therefore, a draft Finding of No Significant Impact has been prepared. The Environmental Assessment is being coordinated with the U.S. Environmental Protection Agency, the U.S. Fish and Wildlife Service, the National Marine Fisheries Service, and the New Jersey Department of Environmental Protection.

In accordance with Section 401 of the Clean Water Act, Water Quality certification will be obtained from the New Jersey Department of Environmental Protection prior to construction of the Pond Creek project. Based on the information gathered during the preparation of the Environmental Assessment, and the application of appropriate measures to minimize project impacts, it was determined in accordance with Section 307(C) of the Coastal Zone Management Act of 1972 that the plan complies with and can be conducted in a manner that is consistent with the approved Coastal Zone Management Program of New Jersey. A consistency determination from the New Jersey Department of Environmental Protection will be received prior to project construction.

The Environmental Assessment has shown that the proposed activity is not likely to jeopardize the continued existence of any species or the critical habitat of any fish, wildlife or plant, which is designated as endangered or threatened pursuant to Section 7 of the Endangered Species Act, as amended. In accordance with Section 404 of the Clean Water Act, a Section 404(b)(1) analysis was prepared for the proposed action. Approximately 1.7 acres of wetlands and 1.3 acres of open water will be impacted by this project; however, no long-term cumulative impacts are anticipated to waters of the United States. As a result of this project, we anticipate a substantial net increase (270 acres) in habitat improvement of the existing marsh.

In accordance with guidelines established under Section 106 of the National Historic Preservation Act of 1966, as amended, no impacts are anticipated to historic properties or other cultural resources. In a correspondence dated July 27, 2004 the New Jersey State Historic Preservation Office concurred with our findings that there are no historic properties within the project's area of potential effects.

The decision whether to accomplish the work proposed in this public notice will be based on an evaluation of the probable impact of the proposed work on the public interest. The decision will reflect the national concern for the protection and utilization of important resources. The benefit, which reasonably may be expected to accrue from the proposal, must be balanced against its reasonable foreseeable detriments. All factors, which may be relevant to the proposal, will be considered. Among those are conservation, fish and wildlife, general environmental concerns, economics, historic values, recreation, safety, water quality, aesthetics, and in general, the needs and welfare of the people.

The public and all agencies are invited to comment on this proposal. Copies of the draft Environmental Assessment are available upon request by calling Mr. Mark Eberle of the Environmental Resources Branch at (215) 656-6562. The public notice and Environmental Assessment are available for review on the Philadelphia District web page at www.nap.usace.army.mil.

Any person may request, in writing, to the District Engineer, within the comment period specified in this notice (**30 June 2005 through 30 July 2005**) that a public hearing be held to consider this proposal. Requests for a public hearing shall state, in detail, the reasons for holding a public hearing.

All comments on the work described in this public notice should be directed to Mr. Minas M. Arabatzis, ATTN: Environmental Resources Branch, U.S. Army Corps of Engineers, Wanamaker Building, 100 Penn Square East, Philadelphia, Pennsylvania 19107-3390 by **30 July 2005**.



Minas M. Arabatzis
Chief, Planning Division
Philadelphia District
U.S. Army Corps of Engineers

**U.S. ARMY CORPS OF ENGINEERS
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